

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning on page 4, line 21 with the following rewritten paragraph:

There are a number of patents that describe integrated devices containing both surface-bound chemical moieties and related information. *See, e.g.*, U.S. Patent Nos. 6,030,581 to Virtanen, 5,872,214 to Nova et al. and ~~5,935,786~~5,935,785 to Reber et al. In another example, U.S. Patent Applications Serial Nos. 09/712,818 and 09/993,353, filed on November 13, 2000 and November 13, 2001, respectively ("Integrated Device with Surface-Attached Molecular Moieties and Related Machine-Readable Information"), inventors Ellson, Foote and Mutz, filed on November 13, 2000 and assigned to Picoliter, Inc. (~~Mountain View~~ Sunnyvale, California), *e.g.*, describes substrates having a surface adapted for attachment with a plurality of molecular moieties and containing related machine-readable information that facilitates formation and/or use of those moieties, *e.g.*, arrays. While information relating to assay conditions may be contained in these devices, assay conditions must be separately monitored and then converted into information in the devices. This poses a problem particularly where it is desirable to perform assays with different equipment, at different locations or at widely separated times.

Please replace the paragraph beginning on page 18, line 16 with the following rewritten paragraph:

The substrate of the device may take a number of forms. For example, the substrate may comprise a disk, tape, well plate, a slide, or other objects commonly used as a substrate. Optionally, the substrate may further contain machine-readable information and/or a medium on which information may be written. Such medium is typically selected to contain electronic information and may be noncoplanar with respect to the surface on which the molecular probes are attached. Optimally, the medium is writable from a surface that opposes the surface on which the molecular probes are attached. Devices comprising a substrate having molecular moieties attached to a surface thereof and containing machine-readable information are described in U.S. Patent Applications Serial Nos. 09/712,818, and 09/993,353 ("Integrated Device with

Surface-Attached Molecular Moieties and Related Machine-Readable Information"), inventors Ellson, Foote and Mutz, filed on November 13, 2000 and November 13, 2001, respectively, and assigned to Picoliter, Inc. (~~Mountain View~~ Sunnyvale, California).

Please replace the paragraph beginning on page22, line 1 with the following rewritten paragraph:

Optionally, the well plate 13 is attached to a cartridge base 29 to form an integrated cartridge 25 and to define a cartridge interior 31. A magnetic disk 33 is generally interposed between well plate 13 and the cartridge base 29 within the cartridge interior 31. The disk 33 is a generally flat and circular piece having an upper surface 35 and a lower surface 37. A cylindrical hub 39 extends perpendicularly from the center of the lower surface 37 of the disk 33 through circular opening 41 of the cartridge base 29. The disk is free to rotate about its hub in a generally free-floating manner. The lower surface 37 is coated with magnetic storage medium 43 that allows a spiral track 23 to be formed therein to magnetically store machine-readable information related to the molecular probes. Also optionally located in the cartridge base 29 is a rectangular opening 45 that provides external access to the magnetic disk contained in the cartridge interior 31. A slidable spring-loaded panel 47 covers the opening 45 in order to protect the magnetic medium on the disk from damage when the disk is not in use. As shown, the slidable panel 47 is positioned such that it does not cover the opening, thereby providing a magnetic reader access to the magnetic medium on the disk. Thus, the information contained in the spiral track 23 is ready for reading by a magnetic reader. Design, construction and use of such magnetic readers are well known in the art. For example, the magnetic reader may engage the disk by gripping the portion of the hub 39 that is accessible to the exterior to the cartridge and spinning the disk. This allows information contained in the spiral track to be read. As the information relating to the attached probes is located within the disk as a spiral track 23 rather than on the interior surfaces 15 of the well plate to which the molecular probes 21 are attached, it is evident that the information is located in a discrete region of the disk that is noncoplanar with respect to the surfaces 15. Optionally, one or more of the interior surfaces 15 may be covered

with a protective layer (not shown) that protects the probes from damage as a result of improper handling. Devices for sealing well plates are commercially available from many sources including TekCel Corporation (Hopkinton, MA). Such protective coatings may also be adapted to protect the integrated indicators.

Please replace the paragraph beginning on page 35, line 21 with the following rewritten paragraph:

Alternatively, an oligomer may be synthesized prior to attachment to the substrate surface and then "spotted" onto a particular locus on the surface using the methodology of the invention as described in detail above. Again, the oligomer may be an oligonucleotide, an oligopeptide, or any other biomolecular (or nonbiomolecular) oligomer moiety. Preparation of substrate-bound peptidic molecules, e.g., in peptide arrays and protein arrays, is described in co-pending, commonly assigned patent application U.S. Serial No. 09/963,173 ("Focused Acoustic Energy in the Preparation of Peptide Arrays"), inventors Mutz and Ellson, filed on September 25, 2001 and referenced *supra*. Preparation of substrate-bound oligonucleotides, particularly arrays of oligonucleotides wherein at least one of the oligonucleotides contains partially nonhybridizing segments, is described in co-pending, commonly assigned patent application U.S. Serial No. 09/962,731 ("Arrays of Oligonucleotides Containing Nonhybridizing Segments"), inventor Ellson, filed on September 24, 2001. Attachment of an oligomer to a surface may involve surface modification in order to promote surface-probe adsorption or another type of attachment as discussed in U.S. Patent Applications Serial No. 09/712,818 and 09/993,353 filed on November 13, 2000 and November 13, 2001, respectively ("Integrated Device with Surface-Attached Molecular Moieties and Related Machine-Readable Information"), inventors Ellson, Foote and Mutz, assigned to Picoliter, Inc. (Cupertino Sunnyvale, California).